

1/17

FIG. 1

a: Nucleotide sequence

Wild Boar	CTCCCTGCTCCCTGCTCCCTGGCGGGACG	1	ATG	CCT	GTG	CTT	GGC	CCG	GAG	AGG	AGG	27
Meishan	.....	...	...	...	...	...	...	...	...	...	...	...
Pietrain	.....	...	...	...	...	...	...	...	...	...	...	...
Wild Boar	CTG CTG GCT TCC CTC AGC TCC GCG CCC CCA GCC GCC CCC											75
Meishan	... ..	...	...	...	...	...	...	...	...	...	...	...
Pietrain	... ..	...	...	...	...	...	...	...	...	...	...	...
Wild Boar	ACG CCT CGG GCT CAG ACC AAC CAG ACG GGC CCC CAG TGC CTG GAG GTG											126
Meishan	... ..	...	...	...	...	...	...	...	...	...	...	...
Pietrain	... ..	...	...	...	...	...	...	...	...	...	...	...
Wildboar	ATT CCC GAC GGG CTC TTC CTC AGC CTG GGG CTG GTG AGC CTC GTG GAG											177
Meishan	... ..	...	...	...	...	...	...	...	...	...	...	...
Pietrain	... ..	...	...	...	...	...	...	...	...	...	...	...
Largewhite	... ..	...	...	...	...	...	...	...	...	...	...	...
Hampshire	... ..	...	...	...	...	...	...	...	...	...	...	...
Duroc	... ..	...	...	...	...	...	...	...	...	...	...	...
Wildboar	GTG CTG GTG GTG GCC GCC ATC GCC AAG AAC CGC AAC CTG CAC TCG CCC											228
Meishan	... ..	...	...	...	...	...	...	...	...	...	...	...
Pietrain	... ..	...	...	...	...	...	...	...	...	...	...	...
Largewhite	... ..	...	...	...	...	...	...	...	...	...	...	...
Hampshire	... ..	...	...	...	...	...	...	...	...	...	...	...
Duroc	... ..	...	...	...	...	...	...	...	...	...	...	...
Wildboar	TAC TAC TTC GTC TGC TGC CTG GCC GTG TCG GAC CTG CTG GTG AGC GTG											279
Meishan	... ..	...	...	...	...	...	...	...	...	...	...	...
Pietrain	... ..	...	...	...	...	...	...	...	...	...	...	...
Largewhite	... ..	...	...	...	...	...	...	...	...	...	...	...
Hampshire	... ..	...	...	...	...	...	...	...	...	...	...	...
Duroc	... ..	...	...	...	...	...	...	...	...	...	...	...
Wildboar	AAC GTG CTG GAG ACG GCC GTG CTG CTG CTG CTG GAG GCG GGC GCC CTG											329
Meishan	... A..	...	...	...	...	...	...	...	...	...	...	...
Pietrain	... ..	...	...	...	...	...	...	...	...	...	...	...
Largewhite	... ..	...	...	...	...	...	...	...	...	...	...	...
Hampshire	... ..	...	...	...	...	...	...	...	...	...	...	...
Duroc	... ..	...	...	...	...	...	...	...	...	...	...	...
Wildboar	GCC CAG GCC GCC GTG GTG CAG CAG CTG GAC AAT GTC ATG GAC GTG CTC											380
Meishan	... ..	...	...	...	...	...	...	...	...	...	...	...
Pietrain	... ..	...	...	...	...	...	...	...	...	...	...	...
Largewhite	... ..	...	...	...	...	...	...	...	...	...	...	...
Hampshire	... ..	...	...	...	...	...	...	...	...	...	...	...
Duroc	... ..	...	...	...	...	...	...	...	...	...	...	...

2/17

Wildboar	TGC	GGC	TCC	ATG	GTG	TCC	AGC	CTC	TGC	TTC	CTG	GGC	GCC	ATC	GCC	GTG	431
Meishan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	GAC
Pietrain	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Largewhite	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hampshire	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Duroc	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Wildboar	CGC	TAC	GTG	TCC	ATC	TTC	TAC	GCG	CTG	CGC	TAC	CAC	AGC	ATC	GTG	ACG	483
Meishan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	CTG
Pietrain	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Largewhite	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hampshire	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Duroc	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Wildboar	CCC	CGC	GCG	GGG	CGG	GCT	ATC	GCG	GCG	ATC	TGG	GCG	GGC	AGC	GTG	CTC	534
Meishan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	TCC
Pietrain	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Largewhite	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hampshire	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Duroc	...	...	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Wildboar	AGC	ACC	CTC	TTC	ATC	GCC	TAC	TAC	CAC	CAC	ACG	GCC	GTC	CTG	CTG	GGC	585
Meishan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	CTC
Pietrain	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Largewhite	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hampshire	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Duroc	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Wildboar	GTC	AGC	TTC	TTC	GTG	GCC	ATG	CTG	GCG	CTC	ATG	GCG	GTA	CTG	TAC	GTC	636
Meishan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	CAC
Pietrain	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Largewhite	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hampshire	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Duroc	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Wildboar	ATG	CTG	GCC	CGG	GCC	TGC	CAG	CAC	GGC	CGG	CAC	ATC	GCC	CGG	CTC	CAC	687
Meishan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	AAG
Pietrain	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Largewhite	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hampshire	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Duroc	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Wildboar	ACG	CAG	CAC	CCC	ACC	CGC	CAG	GGC	TGC	GGC	CTC	AAG	GGC	GCG	GCC	ACC	738
Meishan	...	...	...	...	...	...	...	...	...	...	...	...	...	..A	...	...	CTC
Pietrain	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Largewhite	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hampshire	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Duroc	...	...	...	...	...	...	...	...	...	...	...	...	...	A..	...	...	...

FIG. 1 CONT'D

Wildboar	ACC	ATC	CTG	CTG	GGC	GTC	TTC	CTC	CTC	TGC	TGG	GCA	CCC	TTC	TTC	CTG	CAC	789
Meishan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pietrain	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Largewhite	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hampshire	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Duroc	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Wildboar	CTC	TCC	CTC	GTC	GTC	CTC	TGC	CCC	CAG	CAC	CCC	ACC	TGC	GGC	TGC	GTC	TTC	840
Meishan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pietrain	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Largewhite	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hampshire	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Duroc	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Wildboar	AAG	AAC	GTC	AAC	CTC	TTT	CTG	GCC	CTC	GTC	ATC	TGC	AAC	TCC	ATC	885
Meishan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pietrain	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Largewhite	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hampshire	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Duroc	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

b. Amino acid sequence

Wildboar	?PNGLFLSLG	LVSLVENVLV	VAAIAKNRNL	HSPMYFVCC	LAVSDLLVSV	SNVLETAVLL	99
Meishan	.....	.....	.....	.....	.....	..M.....P	
Largewhite	.....	.....	.....	.....	.....	.....
Hampshire	.....	.....	.....	.....	.....	.....
Duroc	.....	.....	.....	.....	.....	.....

Wildboar	LLEAGALAAQ	AAVVQQLDNV	MDVLICGSMV	SSLCFLGAIA	VDRYVSIFYA	LRVHSIVTLP	159
Meishan	.....	.....	.....	.....	.....	.....
Largewhite	.....	.....	.N.....	.....	.....	.....
Hampshire	.....	.....	.N.....	.....	.....	.....
Duroc	.....	.....	.....	.....	.....	.....

Wildboar	RAGRAIAAIW	AGSVLSSTLF	IAYYHHTAVL	LGLVSFFVAM	LALMAVLYVH	MLARACQHGR	219
Meishan	.....	.....	.....	.....	.....	.....
Largewhite	.....	.....	.....	.....	.....	.....
Hampshire	.....	.....	.....	.....	.....	.....
Duroc	.V.....	.....	.....	.....	.....	.....

Wildboar	HIARLHKTOH	PTRQGCGLKG	AATLTILLGV	FLLCWAPFFL	HLSLVVLCPO	HPTCGCVFKN	279
Meishan	.....	.....	.....	.....	.....	.....
Largewhite	.....	.....	.....	.....	.....	.....
Hampshire	.....	.....	.....	.....	.....	.....
Duroc	.....	.....	T.....	.....	.....	.....

Wildboar	VNLFLALVIC	NSI
Meishan	.....	.....
Largewhite	.....	.....
Hampshire	.....	.....
Duroc	.....	.....

*Bst*UI

*Hha*I

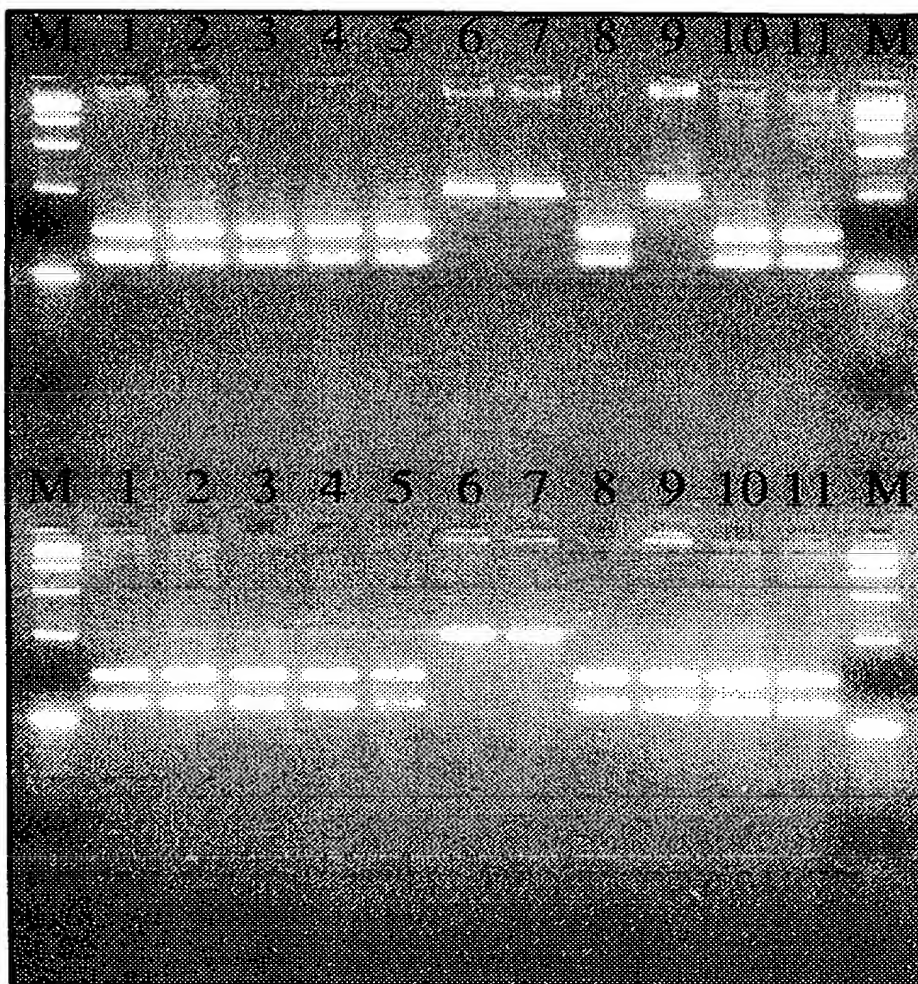


FIG. 2

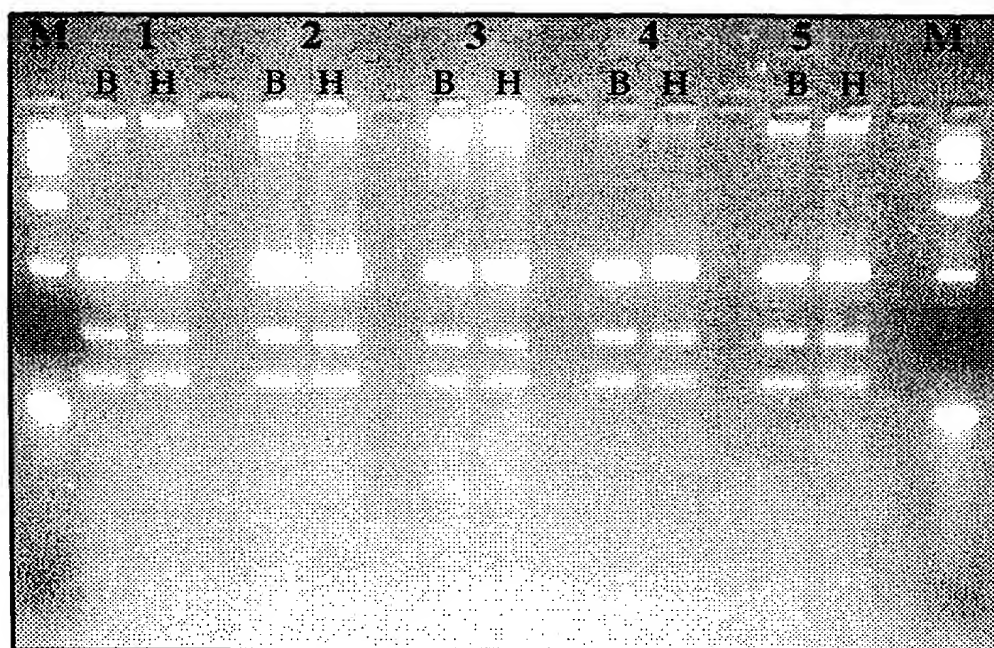


FIG. 3

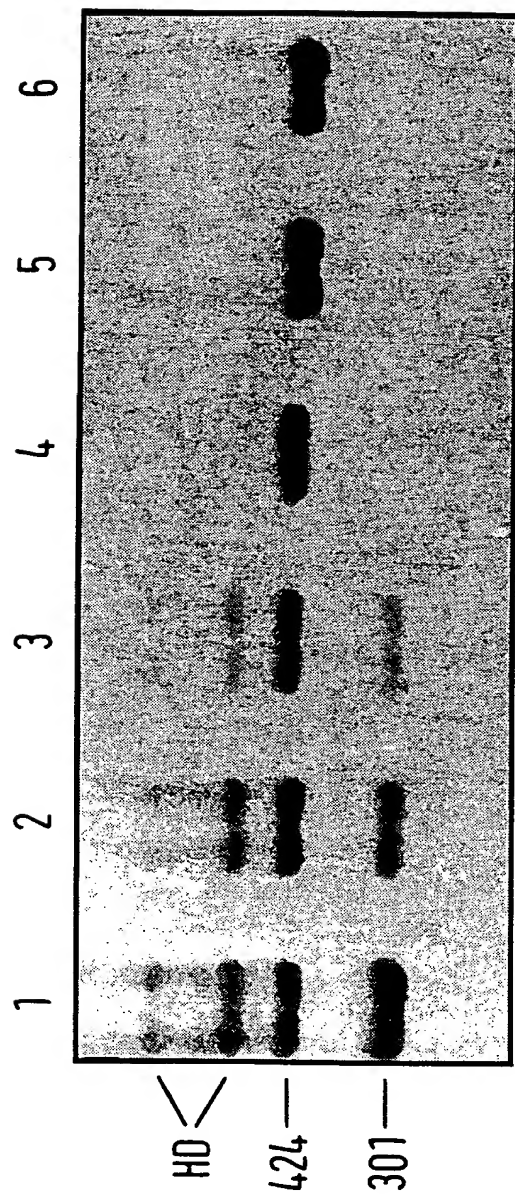


FIG. 4

Sequence Alignment Across the Exon /Intron Border of KIT Exon 17

Allele	Gene Copy	Sequence																
		Exon 17								Intron 17								
I	KIT1	AAT	TAC	GTG	GTC	AAA	GGA	AAC	|	GTG	AGT	ACC	CAC	GCT	CTC	CTG	ACA	GTC
	KIT2	...	...	...	...	...	...	...	|	A..	...	...	...	...	...	...	...	...
I ^P	KIT1	...	...	...	...	...	...	...	|	G..	...	...	...	...	...	...	...	...
	KIT1	...	...	...	...	...	...	...	|	G..	...	...	...	...	...	...	...	...
i	KIT1	...	...	...	...	...	...	...	|	G..	...	...	...	...	...	...	...	...

FIG. 5

FIG. 6A

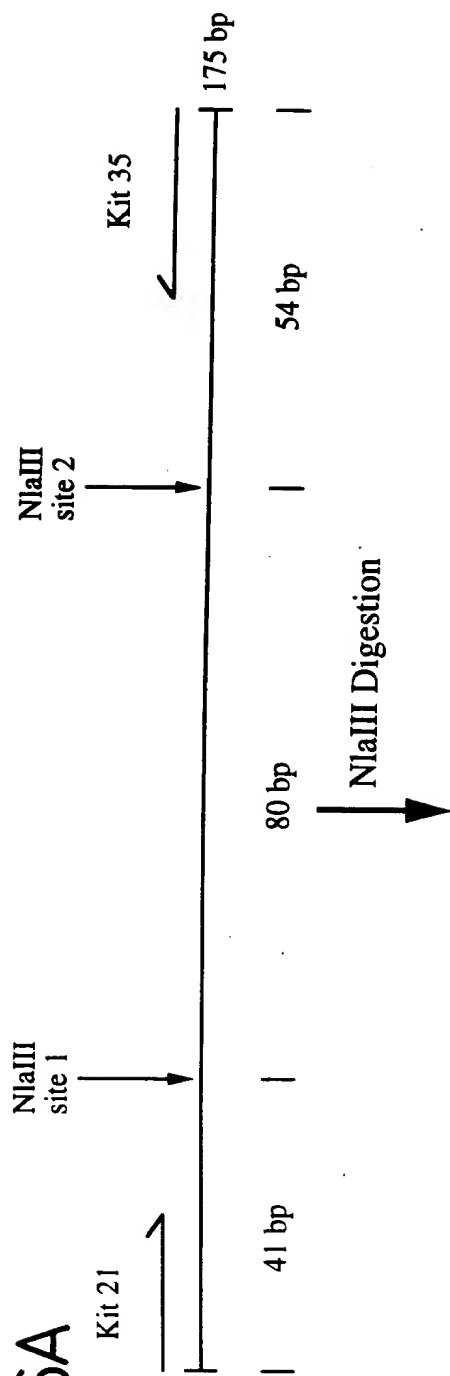
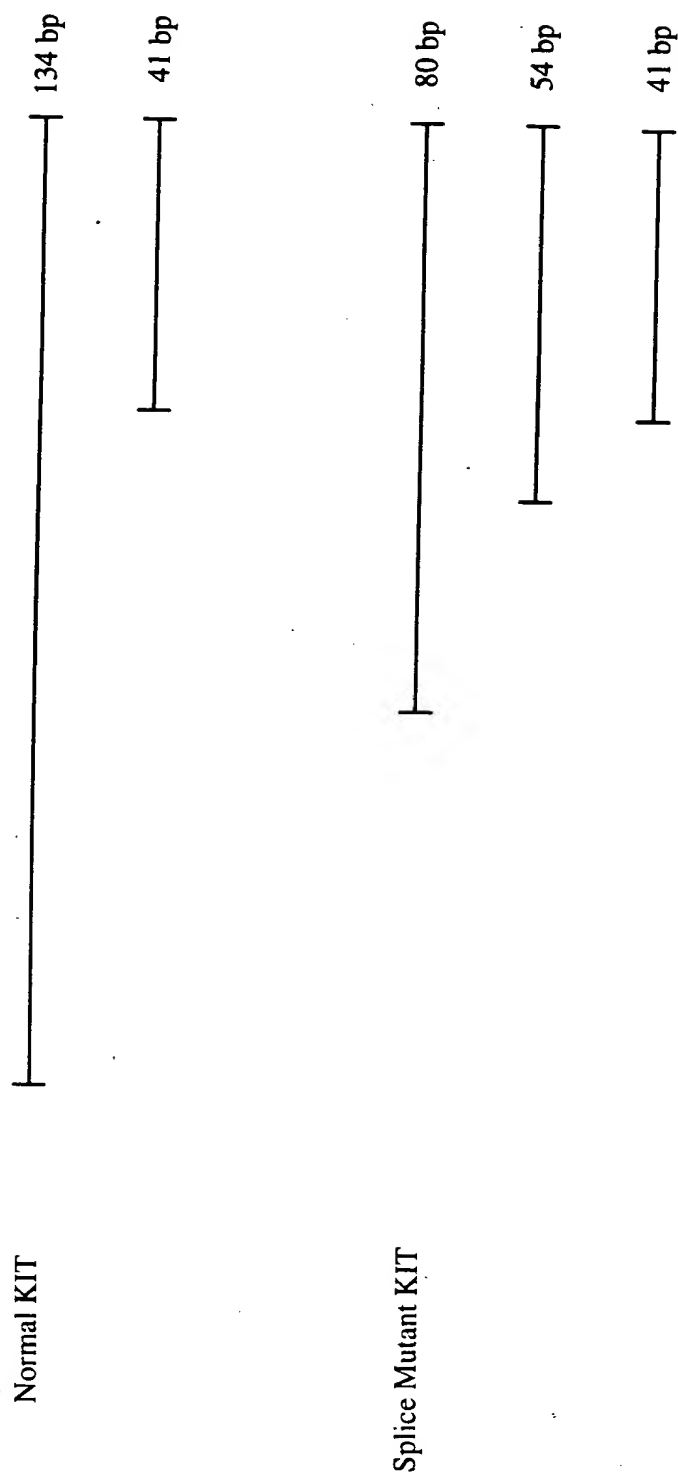


FIG. 6B



9/17

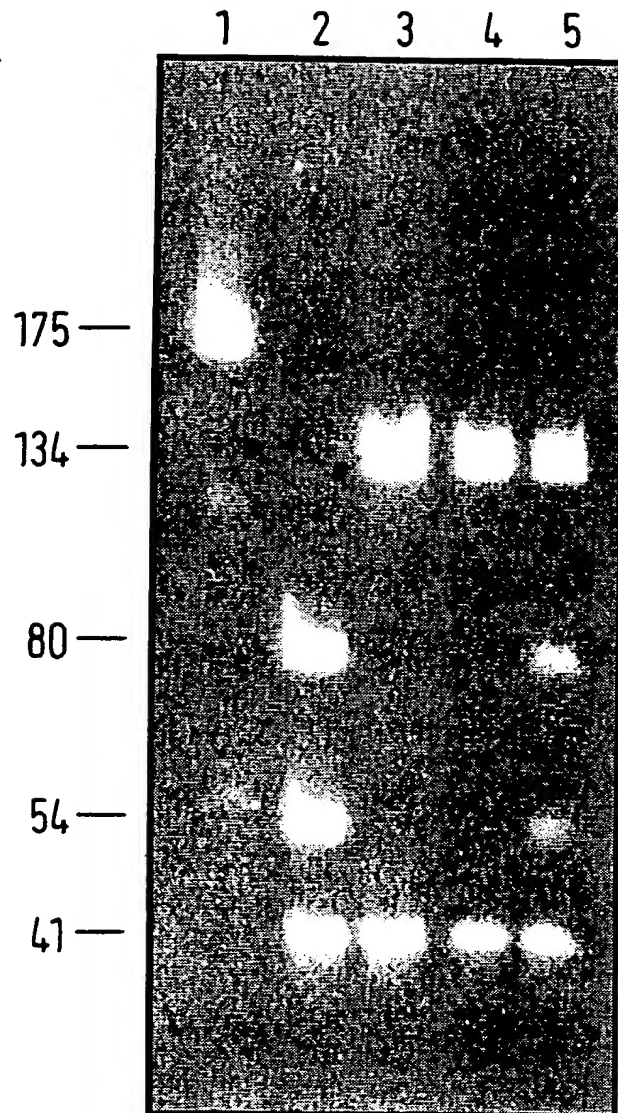


FIG. 6C

Ratio of normal to splice mutant KIT

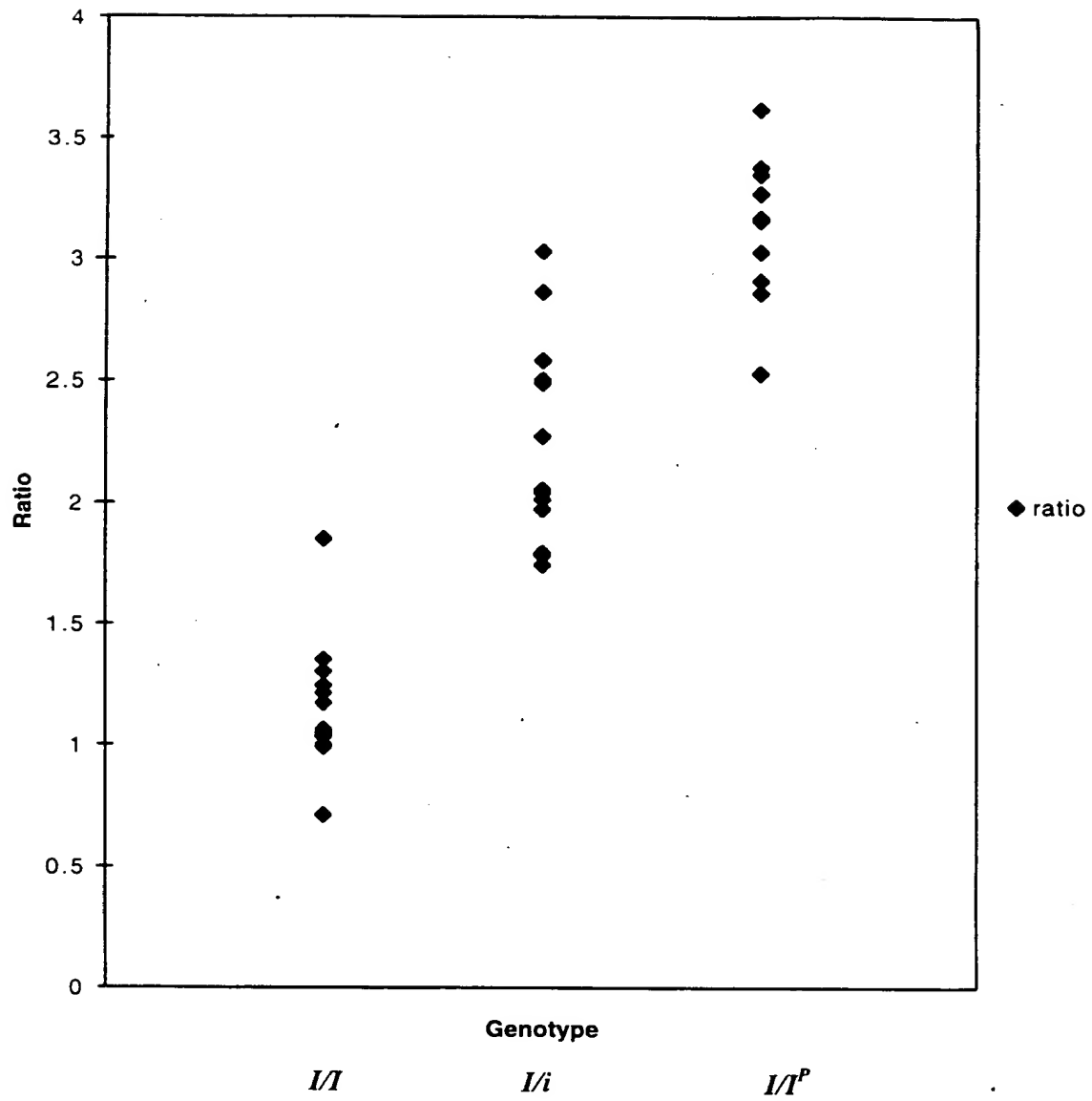


FIG. 7

Ratios for Landrace and Large White

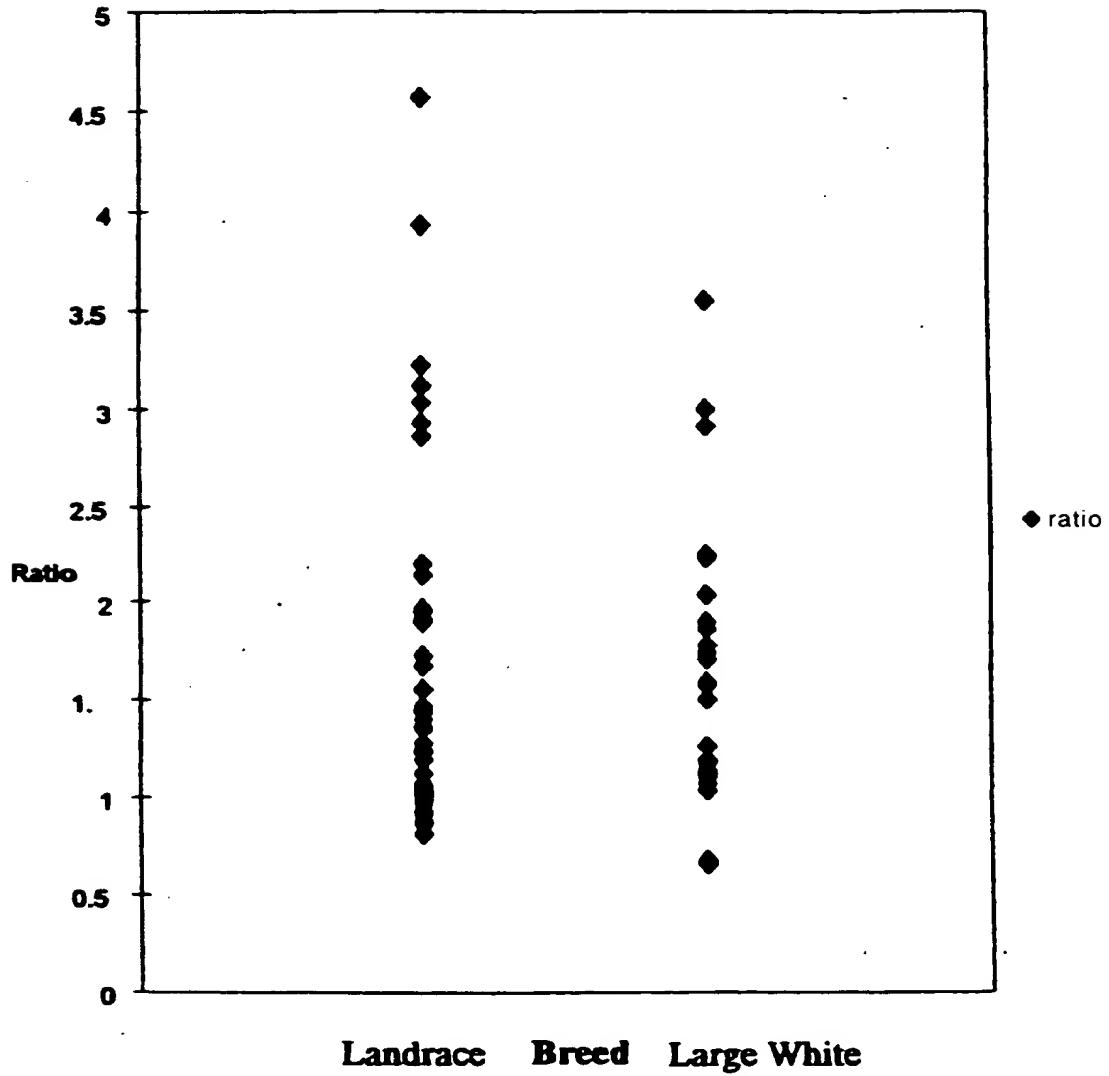


FIG. 8

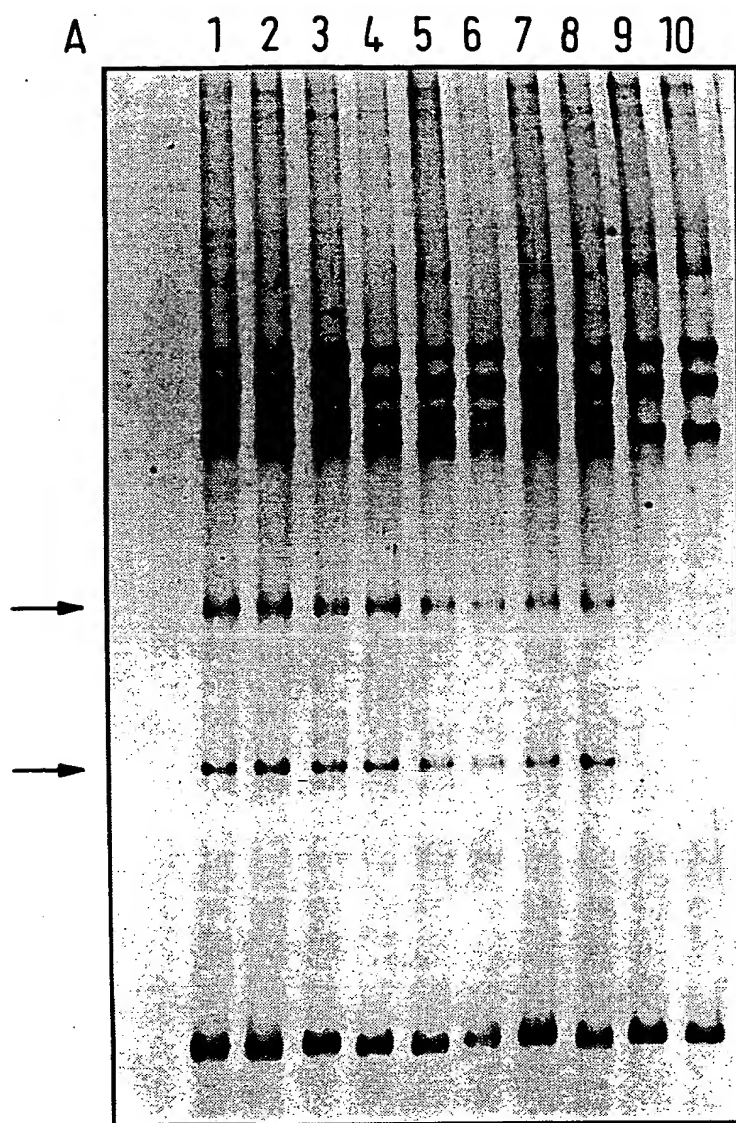


FIG. 9

1
 ATG AGA GGC GCT CGC CGC GCC TGG GAT TTT CTC TTC GTC CTG CAG CTC TTG
 52
 CTT CGC GTC CAG ACA GGC TCT TCT CAG CCA TCT GTG AGT CCA GAG GAA CTG
 103
 TCT CCA CCA TCC ATC CAT CCA GCA AAA TCA GAG TTA ATC GTC AGT GCT GGC
 154
 GAT GAG ATT AGG CTG TTC TGC ACC GAT CCA GGA TCT GTC AAA TGG ACT TTT
 205
 GAG ACC CTG GGT CAG CTG AGT GAG AAT ACA CAC GCA GAG TGG ATC GTG GAG
 256
 AAA GCA GAG GCC ATG AAT ACA GGC AAT TAT ACA TGC ACC AAT GAA GGC GGT
 307
 TTA AGC AGT TCC ATT TAT GTG TTT GTT AGA GAT CCT GAG AAG CTT TTC CTC
 358
 GTC GAC CCT CCC TTG TAT GGG AAG GAG GAC AAT GAC GCG CTG GTC CGA TGT
 409
 CCT CTG ACG GAC CCA GAG GTG ACC AAT TAC TCC CTC ACG GGC TGC GAG GGC
 460
 AAA CCC CTT CCC AAG GAT TTG ACC TTC GTC GCG GAC CCC AAG GCC GGC ATC
 511
 ACC ATC AGA AAC GTG AAG CGC GAG TAT CAT CGG CTC TGT CTC CAC TGC TCC
 562
 GCC AAC CAG GGG GGC AAG TCC GTG CTG TCG AAG AAA TTC ACC CTG AAA GTG
 613
 AGG GCA GCC ATC AGA GCT GTA CCT GTT GTG GCT GTG TCC AAA GCA AGC TAC
 664
 CTT CTC AGG GAA GGG GAG GAA TTT GCC GTG ATG TGC TTG ATC AAA GAC GTG
 715
 TCT AGT TCC GTG GAC TCC ATG TGG ATC AGG GAG AAC AGC CAG ACT AAA GCA
 766
 CAG GTG AAG AGG AAT AGC TGG CAT CAG GGT GAC TTC AAT TTT CTG CGG CAG
 817
 GAA AGG CTG ACA ATC AGC TCA GCA AGA GTT AAT GAT TCT GGC GTG TTC ATG
 868
 TGT TAC GCC AAT AAT ACT TTT GGA TCT GCA AAT GTC ACA ACC ACC TTA GAA
 919
 GTA GTA GAT AAA GGA TTC ATT AAT ATC TTC CCT ATG ATG AAT ACC ACT GTG
 970
 TTT GTA AAC GAT GGA GAG GAT GTG GAT CTA ATT GTT GAG TAC GAG GCG TAC
 1021
 CCC AAA CCT GAA CAC CGA CAG TGG ATA TAT ATG AAC CGC ACT GCC ACT GAT
 1072
 AAG TGG GAG GAT TAT CCC AAG TCT GAG AAT GAA AGT AAC ATC AGA TAT GTA
 1123
 AGT GAA CTT CAC TTG ACC AGA TTA AAA GGG ACC GAA GGA GGC ACT TAC ACA
 1174
 TTT CTC GTG TCC AAT GCT GAT GTC AAT TCT TCT GTG ACA TTT AAT GTT TAC
 1225
 GTG AAC ACA AAA CCA GAA ATC CTG ACT CAT GAC AGG CTC ATG AAC GGC ATG
 1276
 CTC CAG TGT GTG GCG GCA GGC TTC CCA GAG CCC ACC ATC GAT TGG TAT TTC
 1327
 TGT CCA GGC ACC GAG CAG AGA TGT TCC GTT CCC GTT GGG CCA GTG GAC GTG
 1378
 CAG ATC CAA AAC TCA TCT GTA TCA CCG TTT GGA AAA CTA GTG ATT CAC AGC
 1429

FIG. 10

14/17

TCC ATT GAT TAC AGT GCA TTC AAA CAC AAC GGC ACG GTG GAG TGC AGG GCT
1480
TAC AAC GAT GTG GGC AAG AGT TCT GCC TTT TTT AAC TTT GCA TTT AAA GAA
1531
CAA ATC CAT GCC CAC ACC CTC TTC ACG CCT TTG CTG ATT GGT TTT GTG ATC
1582
GCA GCG GGT ATG ATG TGT ATC ATC GTG ATG ATT CTC ACC TAT AAA TAT CTA
1633
CAG AAG CCC ATG TAT GAA GTA CAG TGG AAG GTT GTC GAG GAG ATA AAT GGA
1684
AAC AAT TAT GTC TAC ATA GAC CCA ACG CAA CTT CCT TAT GAT CAC AAA TGG
1735
GAA TTT CCC AGG AAC AGG CTG AGT TTT GGC AAA ACC TTG GGT GCT GGC GCC
1786
TTC GGG AAA GTC GTT GAG GCC ACT GCA TAC GGC TTA ATT AAG TCA GAT GCG
1837
GCC ATG ACC GTT GCC GTG AAG ATG CTC AAA CCA AGT GCC CAT TTA ACG GAA
1888
CGA GAA GCC CTA ATG TCT GAA CTC AAA GTC TTA AGT TAC CTC GGT AAT CAC
1939
ATG AAT ATT GTG AAT CTT CTC GGC GCC TGC ACC ATT GGA GGG CCC ACC CTG
1990
GTC ATT ACA GAA TAT TGT TGC TAT GGT GAT CTC CTG AAT TTT TTG AGA CGG
2041
AAA CGT GAT TCG TTT ATT TGC TCA AAG CAG GAA GAT CAC GCA GAA GCG GCG
2092
CTT TAT AAG AAC CTT CTG CAT TCA AAG GAG TCT TCC TGC AGT GAC AGT ACT
2143
AAC GAG TAC ATG GAC ATG AAA CCC GGA GTG TCT TAT GTG GTA CCA ACC AAG
2194
GCA GAC AAA AGG AGA TCT GCG AGA ATA GGC TCA TAC ATA GAA CGA GAT GTG
2245
ACT CCT GCC ATC ATG GAA GAT GAT GAG TTG GCC CTA GAC CTG GAG GAC TTG
2296
CTC AGC TTT TCT TAC CAA GTG GCA AAG GGC ATG GCC TTC CTC GCC TCG AAG
2347
AAT TGT ATT CAC AGA GAC TTG GCG GCC AGA AAT ATC CTC CTT ACT CAT GGT
2398
CGA ATC ACA AAG ATT TGT GAT TTT GGT CTA GCC AGA GAC ATC AAG AAT GAT
2449
TCT AAT TAC GTG GTC AAA GGA AAC GCT CGG CTA CCC GTG AAG TGG ATG GCA
2500
CCT GAG AGC ATT TTC AAC TGT GTC TAC ACA TTT GAA AGC GAT GTC TGG TCC
2551
TAT GGG ATT TTT CTG TGG GAG CTC TTC TCT TTA GGG AGC AGC CCC TAC CCC
2602
GGA ATG CCA GTT GAT TCT AAA TTC TAC AAG ATG ATC AAG GAG GGT TTC CGA
2653
ATG CTC AGC CCT GAG CAT GCA CCT GCG GAA ATG TAT GAC ATC ATG AAG ACT
2704
TGC TGG GAT GCG GAT CCC CTC AAA AGA CCA ACG TTT AAG CAG ATC GTG CAG
2755
CTG ATT GAG AAG CAG ATT TCG GAG AGC ACC AAT CAC ATT TAT TCC AAC TTA
2806
GCG AAC TGC AGC CCC CAC CGG GAG AAC CCC GCG GTG GAT CAT TCT GTG CGG
2857
ATC AAC TCC GTG GGC AGC AGT GCC TCC TCC ACG CAG CCT CTG CTT GTC CAC
2908
GAA GAT GTC TGA

FIG. 10 CONT'D

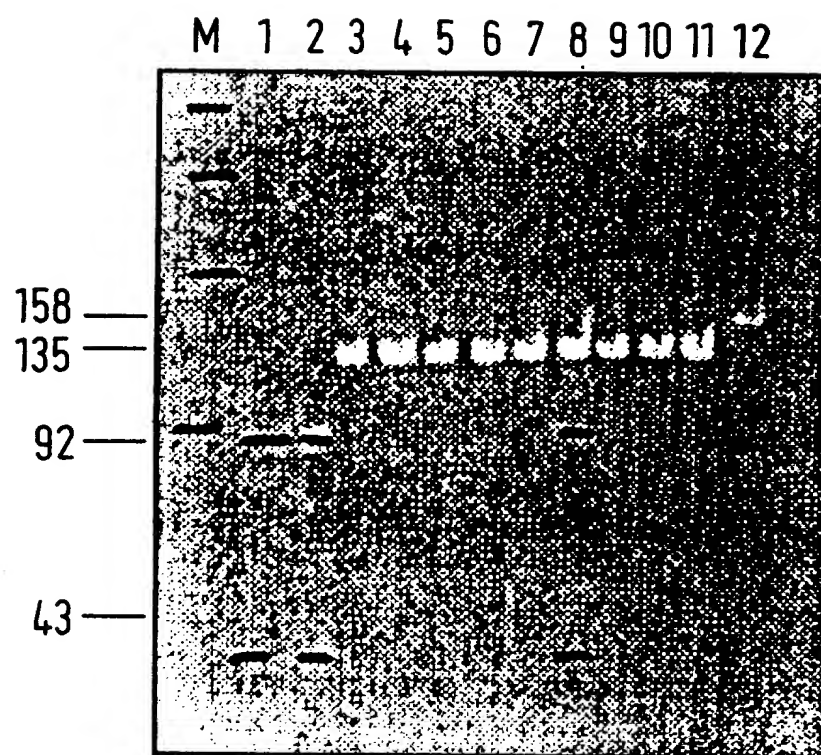


FIG. 11

Wild Boar			CTGCAGTGCT	CCTGGT TGA GG	GGGGACGGGC	1012
Meishan			-----	-----	-----	
Large Black			-----	-----	-----	
Hampshire			-----	-----	-----	
Pietrain			-----	-----	-----	
Duroc			-----	-----	-----	
						1062
Wild Boar	GCTGGAGCCA	GGCTGCGGGG	CTGAGGGCAG	TGGTGCCGTC	CTGCGGCCCG	
Meishan	-----	-----	-----	-----	-----	
Large Black	-----	-----	-----	-----	-----	
Hampshire	-----	-----	-----	-----	-----	
Pietrain	-----	-----	-----	-----	-----	
Duroc	-----	-----	-----	-----	-----	
						1112
Wild Boar	GTTCTTACGT	GGCTGGGCAG	CCCCTTGGCA	GAGAGGACGG	GCCGGACATC	
Meishan	-----	-----	-----	-----	-----	
Large Black	-----	-----	-----	-----	-----	
Hampshire	-----	-----	-----	-----	-----	
Pietrain	-----	-----	-----	-----	-----	
Duroc	-----	-----	-----	-----	-----	
						1162
Wild Boar	TCTGAAGGTA	TGGACGCTGG	ACCCTCTGGG	GCCCGACAGA	GGAAGAGCCA	
Meishan	-----	-----	-----	-----	-----	-G
Large Black	-----	-----	-----	-----	-----	-G
Hampshire	-----	-----	-----	-----	-----	-G
Pietrain	-----	-----	-----	-----	-----	-G
Duroc	-----	-----	-----	-----	-----	-G
						1212
Wild Boar	GCACTTCCAG	GAGGCATGGG	GAGTGGGGGA	GGCTGGAGAG	ACGGCGGGGA	
Meishan	-----	-----	-----	-----	-----	
Large Black	-----	-----	-----	-----	-----	
Hampshire	-----	-----	-----	-----	-----	
Pietrain	-----	-----	-----	-----	-----	
Duroc	-----	-----	-----	-----	-----	
						1262
Wild Boar	GCGCCACCTC	CATCCAGAGA	CCACCACGCC	CGCCTTTGGG	GCGCGCTCTG	
Meishan	-----	-----	-----	-----	-----	
Large Black	-----	-----	-----	-----	-----	
Hampshire	-----	-----	-----	-----	-----	
Pietrain	-----	-----	-----	-----	-----	
Duroc	-----	-----	-----	-----	-----	

FIG. 12

					1312
Wild Boar	GGGACTTTGC	CCCCCACTGG	GGTGGGACGT	GTGCGGGCAG	AAGCTGTCCG
Meishan	-----	-----	-----	-----	-----
Large Black	-----	-----	-----	-----	-----
Hampshire	-----	-----	-----	-----	-----
Pietrain	-----	-----	-----	-----	-----
Duroc	-----	-----	-----	-----	-----

					1362
Wild Boar	GGTGTTGCTC	ACTGCAGGAC	CTCAGGGGAA	GGCCTTCGTG	ACTGCTAGGA
Meishan	-----	-----	-----	-----	-----
Large Black	-----	-----	-----	-----	-----
Hampshire	-----	-----	-----	-----	-----
Pietrain	-----	-----	-----	-----	-----
Duroc	-----	-----	-----	-----	-----

					1412
Wild Boar	AGCAGGCGCA	GCGCCCCGGC	GGAGGGCGGG	GCCCCTCTCT	TCTACGGCTC
Meishan	-----	-----	-----	-----	-----
Large Black	-----	-----	-----	-----	-----
Hampshire	-----	-----	-----	-----	-----
Pietrain	-----	-----	-----	-----	-----
Duroc	-----	-----	-----	-----	-----

Wild Boar	AGTG
Meishan	----
Large Black	----
Hampshire	----
Duroc	----

FIG. 12 CONT'D